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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/712,204	11/12/2003	Masatake Akaike	1232-5202	8270
27123	7590	08/09/2006	EXAMINER	
MORGAN & FINNEGAN, L.L.P. 3 WORLD FINANCIAL CENTER NEW YORK, NY 10281-2101			KOHNER, MATTHEW J	
			ART UNIT	PAPER NUMBER
			3653	

DATE MAILED: 08/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/712,204	AKAIKE, MASATAKE	
	Examiner	Art Unit	
	Matthew J. Kohner	3653	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 17 May 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) 3 and 16-19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-6 and 20-22 is/are rejected.
- 7) ☒ Claim(s) 7-15 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |                                                                                                    |                                                                             |
|----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____                                                |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>5/13/05</u> .                                                             | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Election/Restrictions*

Claims 3 and 16-19 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected species, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on May 17, 2006. Applicant has traversed the election of species requirement arguing there is no showing of any serious burden on the Examiner to examine all of the claims. This argument is not persuasive because while there may or may not be overlapping searches of each of the defined inventions, the divergent subject matter contained in the nonelected groups or inventions would warrant significant additional consideration on the merits. Additionally, the Examiner remains of the position that the inventions as defined in the previous restriction requirement comprise distinct species as discussed in the last office action. The requirement for election of species is still deemed proper and hereby made final.

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 4, 6, 21 and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent No. 5,101,661 to Cresson et al. (*hereinafter* “Cresson”)

Cresson discloses an apparatus for discriminating a kind of a sheet material comprising:

- a substrate (18) having a recessed portion;
- a press member (16) situated so that a sheet material can be deflected using the recessed portion;
- a support member (34) for supporting the press member such that the sheet material situated to cover the recessed portion is pressed by the press member; and
- a sensor (20) for detecting information corresponding to a deformation amount of the sheet material,
- means for discriminating a kind of the sheet material on basis of the information on the deformation amount of the sheet material detected by the sensor (col. 7, lines 54-59).

In regard to claim 4, Cresson discloses press member holding means (40).

In regard to claim 6, Cresson disclose a computer which has a memory (this is inherent since the computer holds the equations to be solved; see col. 7, lines 54-59) and a discrimination unit (col. 7, lines 20-24).

In regard to claim 21, press member holding means (40) is capable of recovering its original shape after deformation (i.e. the shape of the air cylinder is changed when the cylinder is expanded and contracted) and therefore is elastic.

In regard to claim 22, Cresson discloses a method for discriminating a kind of sheet material, comprising the steps of:

- pressing the sheet material on a recessed portion (see Fig. 2);
- detecting a deformation amount of the sheet material (col. 4, lines 44 *et seq.*);

- discriminating a kind of the sheet material on the basis of the detected deformation amount (col. 7, lines 54-59).

Alternatively, claims 1, 2, 6 and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Cresson wherein the air cylinder (40), instead of the wheel carrier (34), is considered the support member. Under this interpretation, Cresson discloses an apparatus for discriminating a kind of a sheet material comprising:

- a substrate (18) having a recessed portion;
- a press member (16) situated so that a sheet material can be deflected using the recessed portion;
- a support member (40) for supporting the press member such that the sheet material situated to cover the recessed portion is pressed by the press member; and
- a sensor (20) for detecting information corresponding to a deformation amount of the sheet material,
- means for discriminating a kind of the sheet material on basis of the information on the deformation amount of the sheet material detected by the sensor (col. 7, lines 54-59).

In regard to claim 2, Cresson discloses support member (40) and press member (16) are coupled together (see Fig. 2) and situated outside the recessed portion and the support member is deformed (i.e. the shape of the air cylinder is changed) when the press member presses the sheet material.

In regard to claim 6, Cresson disclose a computer which has a memory (this is inherent since the computer holds the equations to be solved; see col. 7, lines 54-59) and a discrimination unit (col. 7, lines 20-24).

In regard to claim 22, Cresson discloses a method for discriminating a kind of sheet material, comprising the steps of:

- pressing the sheet material on a recessed portion (see Fig. 2);
- detecting a deformation amount of the sheet material (col. 4, lines 44 *et seq.*);
- discriminating a kind of the sheet material on the basis of the detected deformation amount (col. 7, lines 54-59).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cresson. Though not specifically disclosed by Cresson, it would have been obvious to one of ordinary skill in the art at the time the invention was made, that the extension/retraction of the air cylinder could place the pressing means (16) at a position so that it just contacts the sheet without deflecting the sheet into the recessed area (depending on the thickness of the sheet). Therefore, the pressing member would be contacting the sheet at a position above the recessed position, rather than contacting the sheet in the recessed position.

Claims 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cresson in view of US Patent No. 3,141,250 to Whitehead (*hereinafter* "Whitehead").

In regard to claim 20, Cresson discloses cantilever type load cells (col. 4, lines 44-49). Cresson goes on to say that different type of load cell may be used (*Id.*). Whitehead teaches a cantilever beam with piezoelectric element for determining strain (see abstract). It would have been obvious to one of ordinary skill in the art to have used a piezoelectric member, as taught by Whitehead, because piezoelectric element provide accurate determinations of the stress/strain placed the beam.

#### ***Allowable Subject Matter***

Claims 7-15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew J. Kohner whose telephone number is 571-272-6939. The examiner can normally be reached on Mon-Fri 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Mackey can be reached on 571-272-6916. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Matthew J. Kohner  
Examiner  
Art Unit 3653

mjk



**PATRICK MACKEY**  
**PRIMARY EXAMINER**